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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,875	02/22/2002	Joel Jacquet	Q68645	7893

7590 06/04/2003

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EXAMINER
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NGUYEN, TUAN M

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/079,875

Applicant(s)

JACQUET, JOEL

Examiner

Tuan M Nguyen

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirements.

*Paul IP*

PAUL IP

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding to claim 1, the claim recites a reflector external to said first resonant cavity delimiting the second resonant cavity thereinbetween, and selective reflecting an integer number N of optical frequencies wherein two opposed reflector member are not wavelength selective and delimit an amplifying first active section coupled to a phase tuning second active section, each of said two active sections connected to an electrical supply, said "second having active section having" an effective group index that can be adjusted electro-optically as a function of an electrical voltage applied. It is not clear "second having active section having an effective group index" is meant in the claim, which render the claim confusing, vague and indefinite.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Schimpe ('247).

With respect to claims 1-3 and 11, Schimpe disclose a first resonant cavity containing an optical amplifier medium (2) including absorber medium (30) comprising quantum well, waveguide laser (3) and phase shift grating (4) , a pair of opposed reflector members (5), a second resonant cavity (10), a reflector external to said first resonant cavity delimiting the second resonant cavity thereinbetween including filter and lens (F, 9), note col. 3 line 10 to col. 10 line 40, see figures 1-8.

With respect to claims 4-6, Schimpe shows in figures 5-8 a waveguide including at least one Bragg reflector-grating, col. 6 line 45 to col. 9 line 30.

With respect to claims 7-8, Schimpe shows in the figure 1 the first cavity is formed between a first out side face of said first section and an outside face of said second section, note col. 2 line 5 to col. 8 line 67.

With respect to claims 9-10, Schimpe shows in figures 5-8 the variation of the effective group index of phase tuning second active section is obtained by a quantum confinement electro-optical effect, note col. 3 line 10 to col. 10 line 42.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

**Citation Of The Pertinent References**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Nitta et al (US patent 6,031,860) discloses optical device capable of switching output intensity of light of predetermined polarized wave, optical transmitter using the device, network using the transmitter, and method of driving optical device.

The patent to O'Brien et al (US patent 5,793,521) discloses differentially patterned pumped optical semiconductor gain media.

The patent to Lealman et al (US patent 5,699,378) discloses optical comb used with waveguide laser and manufacturing method of same.

The patent to Welch et al (US patent 5,539,571) discloses differentially pumped optical amplifier and MOPA device.

***Communication Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan M Nguyen whose telephone number is (703) 306-0247.

The examiner can normally be reached on 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the

Application/Control Number: 10/079,875

Page 5

Art Unit: 2828

organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.



Paul Ip  
SPE  
Art unit 2828

TMN

May 29, 2003